

CLAIMS

1.-60. (canceled)

61. (currently amended) Bonding machine for lamellar pieces of wood to be joined to a board, wherein the bonding machine comprises:

at least one clamping and pressing device and at least one drive[.];

wherein the clamping and pressing device has at least two pressing members which are configured to be loaded independently of one another against the board by a pressure force[.]; and

wherein the clamping and pressing device comprises a pressing slide that applies a pressing force onto the pieces of wood, arranged in a common plane and having longitudinal sides resting against one another, in a direction transverse to the longitudinal sides resting against one another for forming the board;

wherein the at least two pressing members generate a brake force acting perpendicularly onto a face of the board in a direction perpendicular to the pressing force of the pressing slide.

62. (previously amended) Bonding machine according to claim 61, wherein the pressing members extend parallel to the pieces of wood and transversely to a feeding direction of the board.

63. (previously amended) Bonding machine according to claim 61, wherein the at least one drive comprises piston-cylinder units configured to adjust the pressing members.

64. (previously amended) Bonding machine according to claim 61, wherein the clamping and pressing device has heating elements and the pressing members are movable in a direction transversely to the board relative to the heating elements to a limited extent.

65. (withdrawn - currently amended) Bonding machine according to claim 64, wherein the heating elements (9a) are tubes configured to have a heating medium circulate therethrough.

66. (withdrawn) Bonding machine according to claim 65, wherein the heating medium is water, thermal oil, or steam.

- 2 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung - Filing Date: 5/14/2001

67. (withdrawn - currently amended) Bonding machine according to claim 65, wherein the clamping and pressing device (3) has one or more supply lines (18) and one or more return lines (19) for the heating medium connected to the heating elements (9a).

68. (withdrawn - currently amended) Bonding machine according to claim 67, wherein the supply lines (18) of the heating elements (9a) comprise a common supply conduit (20) and the return lines (19) of the heating elements (9a) comprise a common return conduit (21).

69. (withdrawn - currently amended) Bonding machine according to claim 65, wherein the heating elements (9a) are partially enclosed by an insulation (29).

70. (previously amended) Bonding machine according to claim 64, wherein the heating elements are electrodes.

71. (previously amended) Bonding machine according to claim 64, wherein the heating elements extend parallel to one another.

72. (previously amended) Bonding machine according to claim 64, wherein the heating elements extend in the feeding direction of the board.

73. (previously amended) Bonding machine according to claim 64, further comprising a common support, wherein the heating elements are fastened to the common support.

74. (currently amended) Bonding machine for lamellar pieces of wood to be joined to a board, wherein the bonding machine comprises at least one clamping and pressing device and at least one drive, wherein the clamping and pressing device has at least two pressing members which are configured to be loaded independently of one another against the board by a pressure force;

wherein the clamping and pressing device comprises a pressing slide that applies a pressing force onto the pieces of wood, arranged in a common plane and having longitudinal sides resting against one another, in a direction transverse to the longitudinal sides resting against one another for forming the board;

wherein the at least two pressing members generate a brake force acting perpendicularly onto a face of the board in a direction perpendicular to the pressing force

- 3 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung . - Filing Date: 5/14/2001

of the pressing slide:

wherein the clamping and pressing device has heating elements and the pressing members are movable in a direction transversely to the board relative to the heating elements to a limited extent;

a common support, wherein the heating elements are fastened to the common support; and

wherein the support is comprised of two connecting plates which extend transversely to the feeding direction of the board and ends of the heating elements are fastened to the two connecting plates.

75. (previously amended) Bonding machine according to claim 73, wherein the at least one drive comprises piston-cylinder units configured to adjust the pressing members, further comprising coupling members connected to the piston-cylinder units, wherein the support has through openings configured to receive the coupling members.

76. (previously amended) Bonding machine according to claim 75, wherein the coupling members, positioned at an outlet side of the pressing device, connect the piston-cylinder units and the pressing members.

77. (previously amended) Bonding machine according to claim 76, wherein one of the coupling members is movable to a limited extent relative to the support in which the one coupling member is received and to the heating elements in a direction transversely to the plane of the board.

78. (previously amended) Bonding machine according to claim 76, wherein the pressing members extend across the area of at least two adjacently positioned heating elements.

79. (previously amended) Bonding machine according to claim 76, wherein the pressing members are positioned at the outlet side of the pressing device in front of the heating elements.

80. (previously amended) Bonding machine according to claim 64, further comprising a support, wherein the heating elements are fastened to the support and are configured for receive tensile forces in the feeding direction.

81. (previously amended) Bonding machine for lamellar pieces of wood to

- 4 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung - Filing Date: 5/14/2001

be joined to a board, wherein the bonding machine comprises at least one clamping and pressing device and at least one drive, wherein the clamping and pressing device has at least two pressing members which are configured to be loaded independently of one another against the board by a pressure force;

wherein the clamping and pressing device has heating elements and the pressing members are movable in a direction transversely to the board relative to the heating elements to a limited extent;

a support, wherein the heating elements are fastened to the support and are configured for receive tensile forces in the feeding direction;

noses connected to the support and positioned in front of each heating element at the inlet side of the clamping and pressing device.

82. (previously amended) Bonding machine for lamellar pieces of wood to be joined to a board, wherein the bonding machine comprises at least one clamping and pressing device and at least one drive, wherein the clamping and pressing device has at least two pressing members which are configured to be loaded independently of one another against the board by a pressure force;

wherein the clamping and pressing device has at least one pressing slide configured to apply the pressing force onto the pieces of wood of the board.

83. (previously amended) Bonding machine according to claim 82, comprising a lifting device configured to adjust the pressing slide from a lowered position into a working position.

84. (previously amended) Bonding machine according to claim 83, wherein the pressing slide in the lowered position forms a support for the pieces of wood during insertion into the clamping and pressing device.

85. (previously amended) Bonding machine according to claim 82, further comprising a support, wherein the heating elements are fastened to the support and further comprising noses connected to the support and positioned in front of each heating element at the inlet side of the clamping and pressing device, wherein the pressing slide has cutouts into which the noses penetrate.

86. (previously amended) Bonding machine according to claim 82, wherein

- 5 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung . - Filing Date: 5/14/2001

the lifting device has at least one height-adjustable carriage on which the pressing slide is arranged.

87. (previously amended) Bonding machine according to claim 86, wherein the pressing slide is configured to move transversely to a movement direction of the carriage and absolutely parallel and configured to apply the pressure force onto the pieces of wood.

88. (previously amended) Bonding machine according to claim 86, wherein the pressing slide extends across the length of the pieces of wood of the board.

89. (previously amended) Bonding machine according to claim 86, comprising a feeding device arranged upstream of the clamping and pressing device, wherein the pieces of wood are combined to the board in the feeding device.

90. (previously amended) Bonding machine according to claim 89, wherein the feeding device has at least one holding-down device for the pieces of wood of the board.

91. (previously amended) Bonding machine according to claim 90, wherein the holding-down device is adjustable in the direction of height.

92. (previously amended) Bonding machine according to claim 91, wherein the holding-down device has at least two holding-down elements arranged successively in the feeding direction of the pieces of wood.

93. (previously amended) Bonding machine according to claim 92, wherein the holding-down elements are height-adjustable independent from one another.

94. (previously amended) Bonding machine according to claim 92, wherein the forwardly positioned holding-down element in the feeding direction of the pieces of wood is height-adjustable together with the carriage.

95. (previously amended) Bonding machine according to claim 92, wherein the forwardly positioned holding-down element in the feeding direction of the pieces of wood is height-adjustable relative to the pressing slide and to the carriage.

96. (previously amended) Bonding machine according to claim 89, wherein the feeding device has at least one slide configured to act on the board.

97. (previously amended) Bonding machine according to claim 96, wherein

- 6 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung . - Filing Date: 5/14/2001

a pressure bed is positioned on the bonded board which, upon insertion of a new board, forms a friction element against the force of the slide.

98. (previously amended) Bonding machine according to claim 89, further comprising a coating station for an adhesive arranged upstream of the feeding device and configured to coat at least one of the longitudinal sides of the pieces of wood with an adhesive.

99. (previously amended) Bonding machine according to claim 98, wherein the at least one longitudinal side of the pieces of wood are coated during transport into the feeding device.

100. (previously amended) Bonding machine according to claim 61, wherein the pressing device has a support for the board.

101. (previously amended) Bonding machine according to claim 100, wherein the support is comprised of at least two support parts.

102. (previously amended) Bonding machine according to claim 101, wherein the support parts are heating members.

103. (withdrawn - currently amended) Bonding machine according to claim 102, wherein the support parts ~~(10a)~~ are formed as tubes through which the heating medium is circulated.

104. (withdrawn - currently amended) Bonding machine according to claim 103, comprising one or more supply lines ~~(22)~~ and one or more return lines ~~(23)~~ for the heating medium connected to the support parts ~~(10a)~~.

105. (withdrawn - currently amended) Bonding machine according to claim 104, wherein the supply lines ~~(22)~~ comprise a common supply conduit ~~(24)~~ and the return lines ~~(23)~~ comprise a common return conduit ~~(25)~~.

106. (withdrawn - currently amended) Bonding machine according to claim 101, wherein the support parts ~~(10a)~~ are partially enclosed by an insulation ~~(29)~~.

107. (previously amended) Bonding machine according to claim 101, wherein the support parts are electrodes which extend transversely to the pieces of wood of the board.

108. (previously amended) Bonding machine according to claim 61, wherein

the clamping and pressing device has lower heating elements fastened on a frame of the clamping and pressing device and configured to receive tensile forces in the feeding direction.

109. (withdrawn- currently amended) Method for pressing lamellar pieces of wood to boards, the method comprising the steps of:

coating at least one longitudinal side of the pieces of wood with an adhesive;
positioning the pieces of wood so as to rest against one another with the longitudinal sides that are coated with the adhesive; and
pressing the pieces of wood in a clamping and pressing device (3) by exerting a pressing power against a brake force exerted transversely to the pressing power onto the board (12).

110. (withdrawn - currently amended) Method according to claim 109, further comprising the step of pushing a new board (12) into the clamping and pressing device (3) against a brake force acting onto the board (12) to be pushed out.

111. (withdrawn - currently amended) Method according to claim 109, wherein the individual lamellar pieces of wood (2) upon insertion into the clamping and pressing device (3) are pressed underneath and past noses (28) of the clamping and pressing device (3) and are aligned thereby vertically before the pressing power is applied horizontally.

112. (withdrawn - currently amended) Method according to claim 109, further comprising the step of securing the board (12), before pressing, in the clamping and pressing device (3) by applying a holding-down pressure.

113. (withdrawn - currently amended) Method according to claim 109, wherein the board (12) after pressing is pushed out of the clamping and pressing device (3) by a new board (12) to be pressed.

114. (withdrawn - currently amended) Method according to claim 113, wherein the new board (12) is pressed against the rear edge of the leading board (12) and wherein the clamping and pressing device (3) has pressing members (27) exerting the brake force.

- 8 -

9/14/04: Amd for Ser. No. 09/858,150 - Inventor(s): Erhard Jung . - Filing Date: 5/14/2001